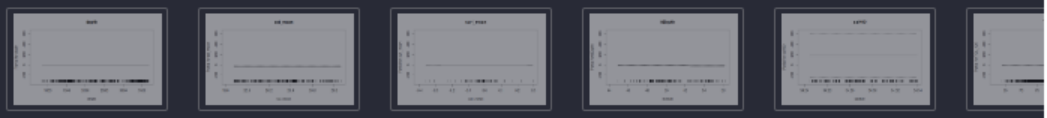
What is GAM of Buoy 20 without interpolation

```{r}
GPSwhaleAISenvSS20 <- readRDS(file = "D:/Buoy_dfs/GPSwhaleAISenvSS20.rda")

# Remove questionable rows where detections are in the wrong place
GPS20_cut <- rbind(GPSwhaleAISenvSS20[1:849,], GPSwhaleAISenvSS20[871:1053,])


trk20_noInterp <- gam(Wpresence>0 ~ depth + sst_mean + curl_mean + ttDepth + sal400
                      + TOL_125 + TOL_2000,
              data = GPS20_cut, family = binomial, method = "REML")

plot(trk20_noInterp, trans = plogis, all.terms = TRUE)
summary(trk20_noInterp)
# Env varb only: Deviance explained = 8.17%, R-sq = 0.051
# Env + SS variables: Deviance explained = 8.9%, R-sq = 0.0532
```

```
Family: binomial
Link function: logit

Formula:
Wpresence > 0 ~ depth + sst_mean + curl_mean + ttDepth + sal400 +
    TOL_125 + TOL_2000

Parametric coefficients:
             Estimate Std. Error z value Pr(>|z|)
(Intercept) -8.936e+02  2.742e+02  -3.259 0.001117 **
depth        8.232e-04  2.126e-04   3.873 0.000108 ***
sst_mean    -1.195e+00  7.608e-01  -1.571 0.116252
curl_mean    2.463e+00  1.484e+00   1.660 0.096887 .
ttDepth      3.113e-02  8.068e-02   0.386 0.699572
sal400       2.653e+01  7.664e+00   3.462 0.000537 ***
TOL_125     -2.591e-02  2.663e-02  -0.973 0.330486
TOL_2000     5.314e-02  2.689e-02   1.976 0.048148 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1


R-sq.(adj) =  0.0532   Deviance explained =  8.9%
-REML = 256.81  Scale est. = 1         n = 1032
```

What is GAM of Buoy 20 with interpolation?

```{r}
trk20_withInterp <- gam(Wpresence>0 ~ depth + sst_mean + curl_mean + ttDepth + sal400
                        + TOL_125 + TOL_2000,
              data = GPSwhaleAISenvSS20.alt, family = binomial, method = "REML")

plot(trk20_withInterp, trans = plogis, all.terms = TRUE)
summary(trk20_withInterp)
# Env varb only: Deviance explained = 7.91%, R-sq = 0.0634
# Env + SS variables: Deviance explained = 8.92%, R-sq = 0.0703
```



```
Family: binomial
Link function: logit

Formula:
Wpresence > 0 ~ depth + sst_mean + curl_mean + ttDepth + sal400 +
    TOL_125 + TOL_2000

Parametric coefficients:
             Estimate Std. Error z value Pr(>|z|)
(Intercept) -1.390e+02  2.234e+02  -0.622 0.533938
depth        5.190e-05  1.567e-04   0.331 0.740399
sst_mean    -1.266e+00  6.488e-01  -1.951 0.051019 .
curl_mean    4.886e+00  1.374e+00   3.556 0.000376 ***
ttDepth     -2.929e-01  6.793e-02  -4.312 1.62e-05 ***
sal400       5.220e+00  6.266e+00   0.833 0.404811
TOL_125     -5.675e-02  2.301e-02  -2.466 0.013669 *
TOL_2000     3.358e-02  2.308e-02   1.455 0.145643
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1


R-sq.(adj) =  0.0703   Deviance explained = 8.92%
-REML = 305.77  Scale est. = 1         n = 1053
```